

## May 19, 2008 Meeting on Wyoming Oil and Gas Issues

Please send any corrections/additions to Darcy Campbell at [campbell.darcy@epa.gov](mailto:campbell.darcy@epa.gov) and we will revise the notes. Please check your email and phone number.

<u>People Attending</u>	<u>Organization</u>	<u>Email</u>	<u>Phone</u>
Jim Peterson	EPA Spill Prevention	<a href="mailto:peterson.jim@epa.gov">peterson.jim@epa.gov</a>	303-312-6568
Deb Thomas	Powder River Basin Resource Council	(b)(6) privacy	(b)(6) privacy
Louis Meeks	PACC (?)	(b)(6) privacy	(b)(6) privacy
Jennifer Goldman	Oil and Gas Accountability Proj.	<a href="mailto:jennifergoldman@ogap.org">jennifergoldman@ogap.org</a>	(b)(6) privacy
Sands Dickson	Clark Resource Council (?)	(b)(6) privacy	(b)(6) privacy
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Jeff Locker	Landowner, Pavillion	(b)(6) privacy	(b)(6) privacy
John Wagner	WDEQ/WDD (?)	<a href="mailto:jwagne@wyo.gov">jwagne@wyo.gov</a>	307-777-7072
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**Meeting Notes**

Bert Garcia welcomed all participants and spoke about the importance of ground water and protecting it.

Deb Thomas of the Powder River Basin Resource Council talked about the Council and how it was formed in 1973 in response to coal strip mining. She explained that several groups were represented today in addition to PRBRC. The Pavillion Area Concerned Citizens (PACC) and Clark Resource Council both which are affiliates of PRBRC are also represented at the meeting. She discussed coal bed methane development in Wyoming and disposal of 85 million gallons per day of water into surface water. This equates to flushing \$1 million per day of water based on Sheridan water costs.

**Deaver Area**

Deb showed a Powerpoint slide show, and that is attached to the email going out to all people present at this meeting. Some problems she has seen due to oil and gas development in the Deaver include: pipes bursting forming bogs on Doug and Jeannie McMullan's land. They have tried to work with the state and industry to clean it up. McMullan's board horses and worry about pipes that were thrown into pits working their way to the surface.

Produced water (oil, condensate) enters drains, ditches and flows to creeks, rivers.

In March 2008 McMullan's saw oil spurting all over, and oil floating on their pond. They have not heard from WDEQ after WDEQ took a sample to analyze. On McMullan's land, oil and gas wells are pumping 1,200 gallons per day of highly contaminated water into irrigation drains.

Air quality is also a problem. The hydrogen sulfide gas (H<sub>2</sub>S) makes you sick. Citizens would like monitoring. WDEQ has not responded. Deb stated that WDEQ can not keep up with the drilling and its effects. It does not have the manpower, dollars or expertise. The effects of oil and gas drilling are overwhelming the people who live there.

VA Resources LLC was supposed to clean up (McMullan's land?) and nothing was done. Finally the landowners were offered 20 pounds of grass seed for remediation.

**Clark Area**

On the Beartooth Front, there are 75 square miles being leased/drilled. The Clark Fork River (wild and scenic status) runs through the area and it is a part of the greater Yellowstone ecosystem, with greater biodiversity than anywhere else in the nation.

The Bennett Creek Prospect well site is in the middle of a subdivision where Deb lives

immediately below the site. They have unlined waste pits. When closing pits, salts and condensates are left at the surface after closure. The oil and gas company drilled a well for drinking water at the well pad. Residents nearby are all on private wells and are worried that the pad well will contaminate the drinking water wells in their subdivision. The Oil and Gas Commission has jurisdiction on the well pad. There is erosion off of the well pad, storm water discharge, it is 500 feet to the creek (a Class 2AB stream of high quality). There is drainage from the pad into the stream.

The drilling company (Windsor) lost circulation when drilling a slant hole well in August 2006. Windsor put in sump pits and dumped on private land. The fluid had a bad odor. There were 3 incidents of fluids/condensate being dumped on private property. Methane and fluids were bubbling up 500 feet from the pad. The condensate was flowing down the county road. They had an earthquake in this area a month ago so it is a seismically active area. They had blow holes that contaminated the shallow and deep aquifer. 97 tons of VOCs released, 11 tons of hazardous pollutants, 101 tons of methane and ethane. Twenty-five households were evacuated. Industry didn't contact the residents. A private citizen had to contact WDEQ. Drilling continued two weeks after this. The extent of contamination has not been determined. To date there has been sampling of 53 monitoring wells, 20 private homes, 5 creek locations and 6 springs. It was the company's second Notice of Violation. They received a fine of \$2,812.

Benzene contamination is up to 10 times the drinking water standard. Two new permits were issued by the Oil and Gas Commission. How can new wells be permitted? The State has asked Windsor to do a ground water flow map, which has not been done yet.

Sands Dickson spoke about moving to Clark a few weeks after the blowout. When she put in post holes for fencing, she smelled a "model airplane smell" that WDEQ staff said was likely toluene. (b)(6) privacy

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Deb Thomas next spoke about aeration of condensates and pond contents. She spoke about the Voluntary Remediation Program. The Bennett Creek well was contaminated with high diesel range organics, but nothing above regulatory limits. She asked for a list of drilling fluids. She obtained a very large list of drilling fluids and has created a short list of the blowout constituents.

They are seeing many Tentatively Identified Constituents (TICs). There seem to be two sources of contamination. The TICs match the CAS of some drilling fluids. There are constituents in the blowout well such as gluteraldehyde. The drilling company is not testing for the same constituents they put down the wells. People are being exposed to chemicals and these need to be tested for, in addition to the standard suites of VOCs, semivolatiles, etc.

The EPA RCRA Subtitle C exemption of drilling and frac'ing fluids makes things difficult to find out the constituents that are used and track information on toxicity and volumes.

### **Pavillion Area**

Located near the Wind River Reservation in the Wind River Basin, there are about 200 people living in town and another 200 in the area east of town. About 400 people have been impacted by the oil and gas drilling in this area.

In the Muddy Ridge gas field, wells are at a distance of 150 feet from some homes.

Luis Meeks mentioned that surface casing should be 1000 feet deep, and that drillers are losing circulation right from the start. Wells are drilled right next to surface water and drinking water wells.

Luis has lived on his land for 32 years. He no has 6 gas wells on his property. His well is contaminated and Encana says it is not responsible. He negotiated for two years to have it cleaned up. Luis drilled his own well to get clean drinking water. The well blew out due to high gas pressure (2 million cubic feet of gas). Luis and his family were evacuated and he was threatened with a lawsuit by Encana. He had to file a quitclaim deed to Encana. He has no well to use for household water and can not drill another. He is relying on Encana to haul his water in, which they are not required to do and they may quit at any time. He can not use his land as collateral on a bank loan due to the quitclaim deed.

Jeff Locker of the Pavillion area spoke about his experience. He and his wife Rhonda bought their home in the mid-1980s. Their water had been "sweet" and turned black with high TDS, sulfate. It can not be used for people or livestock. Encana gave Jeff \$20,000 to put in a reverse osmosis system for his home. Jeff had to sign an agreement that Encana was not responsible for contamination of his water. He changes his filter every 2-3 weeks. However, glycols have been detected in the water and RO won't take out glycols. Jeff and Rhonda have quit drinking the water due to the presence of glycols.

Jeff expressed frustration that the ball was dropped at the State level. Jeff also has contaminated pits (down to ground water level) on his property. Encana drilled monitoring wells on his property without permission. He found out about it at a public meeting.

He wants a ground water flow map of the aquifers. His well is about 460 feet deep.

Since the well contamination, (b)(6) privacy  
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He can see the fumes coming off of the wells and suspects air exposure. He thinks there are problems in the soil, water and air.

He discussed the confidentiality agreements that Encana makes with landowners. Can EPA or WDEQ look at what is in the agreements made with farmers and ranchers? He thinks that the State is not protecting his water.

Deb Thomas mentioned the sample results that they have, and they will leave a copy with us. Could EPA test all the water wells with the same test methods? Right now they only have methods 8260 and 8270 constituents in two wells.

Regarding pit monitoring, industry decides which pits to clean up. They base the depth of cleanup on the water table when water is lowest, and then at high water table levels (irrigation season) the pits flood with ground water. Industry cleans up to the Wyoming Oil and Gas Commission standards, with no further ground water monitoring.

Luis said that in his well they have detected glycol, diesel, gas, and other hydrocarbons. Encana says they are using fresh water. Glycol comes from the heat tracing lines. A significant amount of glycol is pumped into the ground when the lines leak.

On the Bill Garland property, he has three wells. His cows went blind and his well needs to be tested.

Luis said that drillers are not plugging and abandoning wells properly. Pits are inadequately cleaned up.

**John Fenton**

He has 24 wells on his farm. They are not casing deeply enough to protect the aquifer. The air quality is also poor. The smell gags you, it burns your eyes and you can taste it. He has nine wells he farms around. (b)(6) privacy

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His well is about 475 feet deep. He doesn't know anything about the ground water in his area (flow directions, etc.) There is no ground water flow map for any area except for Clark. He has found the BLM very difficult to talk to.

Jurisdictional issues are a problem with Tribal leases managed by BLM, Fee Land managed by the Oil and Gas Commission, etc.

**John Wagner, WDEQ**

Pavillion is a high priority for the State DEQ. The Governor has assigned a lead person, Steve Furtney. They are trying to determine if Encana has liability, if they have violated state law and requirements.

John Cora sent a letter to Encana in April 24, 2008, asking for certain things from Encana. They have 30 days to reply, they have not responded yet to the April 24<sup>th</sup> letter,

and that time is not up yet.

Luis stated that he called Steve Furtney and Steve told him not to call since the DEQ is handling Pavillion.

**Carl Anderson, WDEQ**

He believes that the WDEQ is making progress working with Windsor at the Clark site.

**Greg Oberley, EPA**

Greg wrapped up the meeting. He clarified that the RCRA Subtitle C exemption for exploration and production of oil and gas does not give the right to pollute, only the right to handle hazardous substances without all of the RCRA requirements. He said that industry has changed a lot over the past 20 years, with bigger rigs, higher density, more constituents in drilling fluids and muds, but the regulations have not changed in the past 20 years and there is a gap. In addition, resources to deal with issues such as this have decreased.

We closed the meeting saying that we will get the meeting notes out to all. EPA will meet internally and talk with WDEQ about what can be done regarding the problems discussed today. EPA commits to talking with the citizen groups to see what assistance we may be able to offer. Jeff Locker asked that citizens be included in any working group and Greg agreed there will be opportunities for all stakeholders to participate in the process.